



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/599,544	06/23/2000	Joseph Herbst	108339-09033	1196
------------	------------	---------------	--------------	------

32294	7590	07/26/2005
-------	------	------------

SQUIRE, SANDERS & DEMPSEY L.L.P.  
14TH FLOOR  
8000 TOWERS CRESCENT  
TYSONS CORNER, VA 22182

EXAMINER

LEE, CHI HO A

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/599,544

Applicant(s)

HERBST, JOSEPH

Examiner

Andrew Lee

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-23 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-10, 12-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Rom et al U.S. Patent Number 6,252,849.

Re Claims 1, 13, fig. 2 teaches a switch (a network switch) performing flow control including plurality of ports and buffers. Fig. 4B teaches in step 415 for determining if the level of occupancy of allocated portion of buffer exceed a first level to change from a ENABLE state to an DISABLE state (determining... quantity... a first predetermined threshold; disabling, within a switch, a data flow) (See col. 5, lines 53 ~ col. 6, lines 1-8); re-enabling of the data flow is based on the occupancy level of the buffer (a predetermined spatial requirement) and the PAUSE time parameter (a predetermined temporal requirement) (See col. 5, lines 5-36).

Re Claims 2, 10, refer to claim 1, fig. 4A teaches returning to enabled state is base on the level of occupancy decreasing below a second level (a second predetermined threshold; a preferred operational range) and if so, determining is the

Art Unit: 2663

amount of the time the PAUSE time parameter (a predetermined amount of time) has passed.

Re Claim 3, refer to claim 1, wherein the first level is the high level mark.

Re Claim 4, refer to claim 1, wherein the second level is the low level mark.

Re Claim 5, refer to claim 1, the first (a congested operational range) and second (a quasi-congested operational range) occupancy levels are determined based on the buffer capacity (preferred operational range) for a port to mitigate for congestion.

Re Claims 6, 7, refer to claim 5, the low water mark for the port is the occupancy level where DISABLE state changes to the ENABLE state and the occupancy range before reaching the low water mark in the buffer is a preferred operational range; the high water mark is the occupancy level where the ENABLE state is change to the DISABLE state and the occupancy range before reaching the occupancy level.

Re Claim 8, refer to claim 6, the range between the first and second level threshold (a low water mark and a high water mark) defines a quasi- congested range.

Re Claim 9, refer to claim 5, when the occupancy level reaches a first level (the congested operational range) as shown in fig. 4B, the data flow is DISABLE.

Re Claim 12, refer to claim 1, fig. 4A teaches determining whether the occupancy level has fallen the second threshold level (fallen below a low water mark); A PAUSE frame time parameter specifies an amount of time (a predetermined amount of time) before transmission, whereby the switch enable transmission based on the occupancy level of buffer associated with the port and the PAUSE time parameter.

Re Claims 14-23, refer to claim 13, fig. 3 is the Switch processing Engine 215 (memory management unit and location budget manager) for managing the data flow for the buffered port, wherein 215 function in accordance to fig. 4b, whereby the status and buffer occupancy (a high low water mark; predetermined spatial requirement) is monitored to DIS or ENABLE the data flow.

***Allowable Subject Matter***

3. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In combination with claims 5, 10 and 11, prior art fails to teach starting a timer when the port enters the preferred operational range and determining if the timer has exceeded the predetermined amount of time.

***Response to Arguments***

4. Applicant's arguments filed 5/6/05 have been fully considered but they are not persuasive.

Re Claims 1-23, Applicant argues that Rom et al fails to teach, "the data flow within the switch would not be disabled. However, this limitation is not claimed.

What is claimed is "disabling, within the network switch, a data flow to the port from other ports of the plurality of ports..".

Applicant has correctly recognized that the, "PAUSE frame inhibits the upstream source from transmitting information packets to the input port". It is clear that, it is within the network switch, the PAUSE frame is generated, whereby the data flow between the upstream source ports (other ports) to the receiving port (the port) are disabled.

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Lee whose telephone number is 571-272-3130. The examiner can normally be reached on Monday to Friday from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2663

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AI  
7/18/05

**ANDY LEE**  
**PATENT EXAMINER**

A handwritten signature in black ink, appearing to be 'A. Lee', written below the printed name and title.